

**UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA**

LTJ Enterprises, Inc.,

Plaintiff,

v.

Custom Marketing Co., LLC,

Defendant.

**MEMORANDUM OPINION
AND ORDER**

Civil No. 13-2224 ADM/LIB

Russell M. Spence, Jr., Esq., Hellmuth & Johnson, PLLC, Edina, MN, and Douglas C. Mezera, Esq., Bartz & Bartz PA, Edina, MN, on behalf of Plaintiff.

Donald W. Niles, Esq., Niles Law Office P.A., Wadena, MN, on behalf of Defendant.

I. INTRODUCTION

On January 5, 2016, the undersigned United States District Judge heard oral argument on Plaintiff LTJ Enterprises, Inc.'s ("LTJ") Motion for Summary Judgment [Docket No. 61], Defendant Custom Marketing Co., LLC's ("CMC") Motion for Summary Judgment [Docket No. 75], CMC's Motion to Exclude Expert Testimony [Docket No. 78], and LTJ's Motion to Exclude Expert Testimony [Docket No. 87]. For the reasons set forth below, LTJ's Motion for Summary Judgment is granted in part and denied in part, CMC's Motion for Summary Judgment is granted, and the parties' motions to exclude expert testimony are both denied.

II. BACKGROUND

LTJ, a Minnesota corporation, has its principal place of business in Roseau, Minnesota. Compl. [Docket No. 1] ¶ 1. CMC, located in Fargo, North Dakota, supplies grain and bin equipment for the agricultural industry. *Id.* ¶ 2; Halland Decl. [Docket No. 72] ¶ 2. LTJ owns by assignment United States Patent No. 6,067,927 ("the '927 Patent"), which was issued on

May 30, 2000. Compl. ¶ 8; Mezera Aff. [Docket No. 47] Ex. A (“’927 Patent”). In basic terms, the invention is a “bin level indicator used to provide a person with information as to the level of bulk material in a bin.” Compl. ¶ 6.

In 1996, LTJ began selling a product called the LevAlert utilizing the invention in the ’927 Patent. To determine the level of material in a grain bin or other opaque container, a hole is drilled through the bin wall. One end of the device is placed into the bin through the hole, while the other end remains outside. The outside end is affixed to the side of the bin with screws. The end of the device inside of the bin includes an actuator, which is engaged by the bulk material in the bin. When the actuator is engaged, the visual indicator on the external end of the device rotates from black to yellow. This provides a quick assessment of how much material is inside the bin. Prior to LevAlert, the level of material in the bin was primarily determined by climbing a ladder and peering into the bin.

In 1997, CMC began selling LevAlert as part of its much larger line of products. Halland Decl. ¶ 3. At that time, CMC was unable to purchase LevAlert directly from LTJ. Niles Decl. [Docket No. 74] Ex. 19 49:22–50:1. Instead, CMC purchased LevAlert from Farm Products Direct, LTJ’s Minnesota based distributor. Id. CMC would then, in turn, sell LevAlert to its retail and end-use customers.

CMC sought to purchase LevAlert directly from LTJ. Id. 52:2–11. LTJ initially declined to extend CMC this ability. Id. 52:15–18. However, when Farm Products Direct went out of business, CMC was able to purchase LevAlert directly from LTJ. Id. 31:23–32:4; Halland Decl. ¶ 4.

In addition to direct purchasing, CMC received preferred pricing and assumed some

advertising and warranty claim responsibilities for LevAlert from LTJ. Id. ¶¶4–8. CMC, in exchange, received virtually all United States customer referrals and was the only company in the United States eligible to purchase LevAlert at the preferred price level. Id. Customers who contacted LTJ and expressed interest in LevAlert were directed to speak with Jason Sjostrom (“Sjostrom”), a CMC employee. Niles Decl. Ex. 3.

This arrangement continued until late 2011. On November 15, 2011, Sjostrom was laid off from his employment at CMC. Leverington Decl. [Docket No. 73] ¶ 3. Less than a month later, Sjostrom agreed to work for LTJ. Niles Decl. Ex. 20 14:1–15:6. Around this time, CMC was told that Sjostrom and his new company, Ideal Systems, had been appointed “National Manager” of LTJ’s accounts. Leverington Decl. ¶ 4. LTJ then discontinued CMC’s preferred pricing, raising the price CMC paid for a LevAlert device from \$49.50 to \$69.50. Id. ¶ 5; compare Niles Decl. Ex. 13 (showing December 7, 2011 LevAlert price of \$49.50), with id. Ex. 9 (showing February 22, 2012 LevAlert price of \$69.50). LTJ, aided by Sjostrom’s knowledge, began directly soliciting CMC’s major customers. Leverington Decl. Ex. 5.

Prior to Sjostrom joining LTJ, CMC experienced a steady increase in annual LevAlert sales, peaking in 2011 with 6,501 units sold. Niles Decl. Ex. 11. However, 2012 saw a dramatic plunge; sales fell to 1,698 units, fewer than CMC sold in 2003. Id. In 2012, CMC began developing a competing product, Grain Gauge, which CMC started selling in January 2013. Leverington Decl. ¶¶ 9, 10. Grain Gauge functions similarly to LevAlert. As with LevAlert, Grain Gauge is affixed to the side of a bin and features an actuator that is adapted to respond to the presence or absence of material in the bin. When bin material engages the actuator, the Grain Gauge, like LevAlert, rotates an outward facing indicator from black to yellow, signaling

to an individual on the ground that the bin is filled with material up to the level where the Grain Gauge is located.

Although similar, CMC claims Grain Gauge features design and performance advantages that make it superior to LevAlert. Id. ¶ 14. LTJ filed this lawsuit on August 15, 2013, asserting that Grain Gauge infringes on the '927 Patent. See Compl. In addition, LTJ alleges trade dress and trademark infringement, unfair competition, tortious interference, and deceptive trade practice claims.¹ Id. ¶¶ 18–43. CMC denies the allegations and asserts counterclaims that LTJ tortiously interfered with CMC's business relationships and violated the Minnesota Agricultural Equipment Farm Dealership Act by unilaterally terminating the preferred LevAlert pricing. See Answer Compl. Countercl. [Docket No. 6].

LTJ has moved for summary judgment on its patent infringement claim and for dismissal of CMC's counterclaims. CMC has moved for summary judgment of non-infringement and for dismissal of LTJ's remaining claims.

III. DISCUSSION

A. Legal Standard

Summary judgment is appropriate if there are no genuine issues of material fact and the moving party can demonstrate that it is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(a). A fact is material if it might affect the outcome of the suit, and a dispute is genuine if the evidence is such that it could lead a reasonable jury to return a verdict for either party. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986). A court considering a motion for summary judgment must view the facts in the light most favorable to the non-moving party and give that

¹ LTJ is no longer pursuing its trade dress infringement claim.

party the benefit of all reasonable inferences to be drawn from those facts. Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 587 (1986). Summary judgment is appropriate if the nonmoving party “fails to make a showing sufficient to establish the existence of an element essential to that party’s case, and on which that party will bear the burden of proof at trial.” Celotex Corp. v. Catrett, 477 U.S. 317, 322 (1986). “To defeat a motion for summary judgment, a party may not rest upon allegations, but must produce probative evidence sufficient to demonstrate a genuine issue [of material fact] for trial.” Davenport v. Univ. of Ark. Bd. of Trs., 553 F.3d 1110, 1113 (8th Cir. 2009) (citing Anderson, 477 U.S. at 247-49).

B. The Law of Patent Infringement

“To establish infringement, every limitation set forth in a patent claim must be found in an accused product or process exactly or by a substantial equivalent.” Laitram Corp. v. Rexnord, Inc., 939 F.2d 1533, 1535 (Fed. Cir. 1991). Where the claim limitations appear exactly, the accused product literally infringes. Where features substantially equivalent to the claim limitations appear in the accused product, the accused product infringes under the doctrine of equivalents.

1. Literal Infringement

Literal infringement requires that every limitation set forth in a patent claim be found in the accused device. Elkay Mfg. Co. v. Ebco Mfg. Co., 192 F.3d 973, 980 (Fed. Cir. 1999). If any limitation is missing, there is no literal infringement. Id. Put another way, “[l]iteral infringement of a claim exists when every limitation recited in the claim is found in the accused device, i.e., when the properly construed claim reads on the accused device exactly.” Cole v. Kimberly-Clark Corp., 102 F.3d 524, 532 (Fed. Cir. 1996).

Several of the '927 Patent claims are presented in means-plus-function form, which alters the analysis slightly. A means-plus-function claim “recite[s] a specified function to be performed rather than the structure, material or acts for performing that function.” IMS Tech., Inc. v. Haas Automation, Inc., 206 F.3d 1422, 1429-30 (Fed. Cir. 2000). “Such limitations are construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.” Id. (citing 35 U.S.C. § 112, ¶ 6) (internal quotation omitted).

For a means-plus-function claim, the analysis for literal infringement “requires that the relevant structure in the accused device perform the identical function recited in the claim and be identical or equivalent to the corresponding structure in the specification.” Odetics, Inc. v. Storage Tech. Corp., 185 F.3d 1259, 1267 (Fed. Cir. 1999). In the context of a means-plus-function claim, the word “equivalent” indicates the relevant structure must perform the identical function in substantially the same way to achieve substantially the same result. Id.

2. Doctrine of Equivalents

Even if there is no literal infringement, an accused device may still infringe if each claim limitation is met by an equivalent in the accused device. Cybor Corp. v. FAS Tech., Inc., 138 F.3d 1448, 1459 (Fed. Cir. 1998). The key question is whether the differences are “insubstantial.” Sage Prods., Inc. v. Devon Indus., Inc., 126 F.3d 1420, 1423 (Fed. Cir. 1997). “The doctrine of equivalents prevents an accused infringer from avoiding infringement by changing only minor or insubstantial details of a claimed invention while retaining their essential functionality.” Id. at 1424. As the Federal Circuit has observed,

The doctrine of equivalents is necessary because one cannot predict the future. Due to technological advances, a variant of an invention may be developed after the patent is granted, and that variant may constitute so insubstantial a change from what is claimed in the patent that it should be held to be an infringement.

Such a variant, based on after-developed technology, could not have been disclosed in the patent.

Chiuminatta Concrete Concepts, Inc. v. Cardinal Indus., Inc., 145 F.3d 1303, 1310 (Fed. Cir. 1998).

C. Motions to Strike Expert Testimony

Both parties have moved to strike the testimony of the opposition's expert witness.

Federal Rule of Evidence 702 provides:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702. To be admissible, therefore, proposed expert testimony based on scientific, technical or other specialized knowledge must meet three prerequisites: it must be relevant, reliable, and offered by a qualified witness. See Johnson v. Mead Johnson & Co., LLC, 754 F.3d 557, 561 (8th Cir. 2014).

1. John Titus

CMC offers three arguments supporting its motion to strike the expert opinion of LTJ's witness, John Titus ("Titus"). CMC's first argument is that Titus lacks sufficient experience to provide an opinion on patent infringement. Titus has a Bachelor of Science degree in industrial education and is an inventor on many patents.² See Second Niles Decl. [Docket No. 81] Ex. 1 ("Titus Report") (noting Titus' curriculum vitae). Experience and education are two

² One of Titus' patents discloses a fuel oil gauge, a device "similar in use to the bin level indicators sold by both parties to this litigation." Titus Decl. [Docket No. 64] ¶ 3.

independent factors Rule 702 provides for establishing an expert witness' qualification to testify. See Fed. R. Evid. 702. While CMC portrays Titus as someone who lacks knowledge specific to the nuances of patent infringement, “[g]aps in an expert witness’s qualifications or knowledge generally go to the weight of the witness’s testimony, not its admissibility.” Robinson v. GEICO Gen. Ins. Co., 447 F.3d 1096, 1100 (8th Cir. 2006). Titus has sufficient experience to render an opinion on patent infringement of the uncomplicated devices at issue here.

CMC next argues that Titus’ opinions are not based on sufficient facts and data. This argument, like the first, does not justify striking the entirety of Titus’ testimony. In forming his conclusions, Titus visually inspected and disassembled a Grain Gauge and reviewed this Court’s Claim Construction Memorandum [Docket No. 59].³ See Titus Report Ex. 4 (listing documents reviewed). Although it appears there may be a slight inconsistency between what Titus claims to have reviewed and what he actually reviewed prior to rendering his opinion, the record reflects that Titus examined the items most germane to forming an infringement opinion in this case—the accused device, the patented device, the ’927 Patent, and the Claim Construction Memorandum. See generally Second Niles Decl. Ex. 3 (noting that Titus did not actually review each item listed in exhibit 4 of the Titus Expert Report). Thus, Titus’ testimony is not “excessively speculative or unsupported by sufficient facts.” Barrett v. Rhodia, Inc., 606 F.3d 975, 981 (8th Cir. 2010).

Finally, CMC argues that the expert report Titus prepared lacks substance and depth. Rather than providing analysis to underpin his findings, CMC argues that Titus merely offers

³ The Claim Construction Memorandum is also located at LTJ Enterprises, Inc. v. Custom Marketing Co., LLC, No. 13-2224, 2015 WL 3607746 (D. Minn. June 8, 2015).

conclusions without proper foundation. Thus Titus' opinions, argues CMC, are not reliable. This argument is not convincing. CMC has not shown that Titus' testimony is not "based upon sufficient facts or data" or is not "the product of reliable principles and methods," which have been applied "reliably" to the facts of the case. See Fed. R. Evid. 702. While the report itself is brief, the Titus Declaration adds sufficient depth to the report's conclusions. See Titus Decl. Titus' testimony will be considered in ruling on the summary judgment motions.

2. Ryan Douglas

Not surprisingly, LTJ takes issue with CMC's expert, Ryan Douglas ("Douglas"), and offers two reasons why his testimony should be excluded. First, LTJ questions the sufficiency of Douglas' qualifications, arguing that he lacks the required training or experience needed to render an opinion on patent infringement. Second, LTJ argues that Douglas applies incorrect and inconsistent claim term definitions that have a high chance of misleading, rather than assisting, a fact finder.

LTJ's first argument lacks persuasion. Douglas' general experience in product design and development, combined with his specific experience in developing and designing the Grain Gauge, render him qualified to opine on patent infringement. See Fed. R. Evid. 702.

LTJ's second argument does not fare any better. Importantly, Douglas' testimony does not conflict with the Claim Construction Memorandum. The extent to which Douglas' testimony will assist in evaluating the proffered testimony is a matter of degree of reliance rather than a ground for exclusion of his opinion evidence.

D. Summary Judgment of Infringement and Non-Infringement

LTJ accuses the Grain Gauge of literally infringing independent claims 18 and 24 and

dependent claims 21, 26, and 27 of the '927 Patent. LTJ also accuses the Grain Gauge of infringing claims 18 and 24 through the doctrine of equivalents. CMC argues in response that the Grain Gauge functions differently than the '927 Patent and employs structures and components that do not literally infringe the asserted claims. CMC additionally contends that the Grain Gauge is not an infringing product under the doctrine of equivalents.

Claim 18 is representative, reciting:

An indicator for providing an indication of the level of material in a bin containing the material, said bin having a side wall with a hole for accommodating the indicator, comprising: a body, visual means having an outer surface for indicating the level of the material in the bin, means rotatably mounting the visual means on the body for movement between an ON position and an OFF position indicating the level of the material in the bin, a transparent member attached to the body enclosing the visual means within the body and transparent member, means having a bright color on a first portion of the outer surface providing a visual indication of the ON position of the indicator, the remaining portion of the outer surface having a dark color providing a visual indication of the OFF position of the indicator, an arm, means pivotally mounting a first end portion of the arm on the body for movement between first and second positions, motion transmitting means connecting a second end portion of the arm to the visual means operable to rotate the visual means between the ON and OFF positions in response to generally upward and downward movement of the second end portion of the arm, and actuator means connected to the arm adapted to be located within the bin for moving the arm to the first position when the material in the bin engages the actuator means and moving the arm to the second position when the material in the bin does not engage the actuator means whereby the arm operates the motion transmitting means which rotates the visual means between its ON and OFF positions.

'927 Patent 10:56–11:16.

1. Arm

The '927 Patent claims an “arm.” “Arm” was given its plain and ordinary meaning during claim construction. CMC contends that a person reasonably skilled in the art would conclude that the Grain Gauge does not have the claimed arm. CMC also contends that the

Grain Gauge does not have the equivalent of an arm.

Claim 18 teaches that the arm has two ends, a first end portion and a second end portion. One end is connected to the actuator means and the “second end portion” is connected to the visual means by way of a motion transmitting means. Id. 11:5–6; 11:3–6, 9–10. The visual means operates in response to the “generally upward and downward movement of the second end portion of the arm.” Id. 11:7–9.

As a threshold issue, CMC argues that LTJ should be restricted to the infringement contention in its claim chart, that the claimed arm is literally infringed by the Grain Gauge’s “large gear.” Niles Decl. Ex. 14 (“Claim Chart”). According to CMC, LTJ’s position has improperly pivoted its argument, with LTJ now insisting for the first time that the Grain Gauge’s gear drive and linkage assembly is the claimed arm. CMC also takes issue with LTJ now asserting that the large gear alone satisfies the definition of an arm through the doctrine of equivalents.

CMC cites Breathable Baby, LLC v. Crown Crafts, Inc., in support of its argument that LTJ’s new infringement contention should not be permitted. 2014 WL 3928526, at *3–4 (D. Minn. Aug. 12, 2014). The court in Breathable Baby excluded the defendant’s amended non-infringement claim chart on the grounds that its inclusion would necessitate additional discovery and prolong an already protracted infringement case. Id. In contrast, CMC does not argue, and the Court does not believe, that accepting LTJ’s new argument requires additional discovery. This conclusion is supported by CMC’s expert, who substantively addresses LTJ’s new literal and equivalent arguments, as well as CMC’s briefing, which substantively responds to LTJ’s new contentions.

LTJ's shifting theory of infringement at summary judgment is frustrating but does not significantly change the contour of the infringement analysis. Unlike the Breathable Baby fact pattern, here there is no need of a repeat Markman hearing and substantially increasing costs of this litigation. 2012 WL 3928526, at *3. LTJ's argument that the Grain Gauge's gear drive and linkage assembly constitutes the arm claimed in the patent will be considered.

a. The large gear is not the arm literally or through equivalence

It is not entirely clear if LTJ still contends that the large gear alone is literally the claimed arm. In any event, no reasonable juror could conclude that the Grain Gauge's large gear is literally an arm. Claim 18 requires that the arm be "connected" to the actuator means. '927 Patent 11:9–10. The large gear of the Grain Gauge is not connected to the actuator means; one end of the gear is connected to the motion transmitting means and the opposite end is connected to the push rod. This reason also precludes the large gear from being the arm through equivalence. Even assuming that the large gear performs the arm's function in the same way with the same result, the doctrine of vitiation precludes a finding of equivalence. The vitiation doctrine holds that "each element contained in a patent claim is deemed material to defining the scope of the patented invention," and that the doctrine of equivalents "is not allowed such broad play as to effectively eliminate [an] element in its entirety." DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc., 469 F.3d 1005, 1016-17 (Fed. Cir. 2006) (citing Warner-Jenkinson Co., Inc. v. Hilton Davis Chem. Co., 520 U.S. 17, 29-30 (1997)). So, even if two functions or structures may in fact be equivalent, they cannot be found equivalent as a matter of law if doing so would effectively read a claim limitation out of a claim or render it meaningless. Tronzo v. Biomet, Inc., 156 F.3d 1154, 1160 (Fed. Cir. 1998). Holding the large gear as being equivalent

to the arm reads the connection between the arm and the actuator means limitation out of the claim. Therefore, the large gear alone is not literally or equivalently the claimed arm.

b. Gear drive and linkage assembly

As previously mentioned, LTJ also argues that the large gear combined with the linkage assembly is literally or equivalently the arm. The linkage assembly, according to LTJ, is comprised of the slider-actuator connected to the large gear by way of a pin. CMC argues that the Grain Gauge's gear drive and linkage assembly cannot be the claimed arm for three reasons. First, CMC contends that the pin connecting the large gear with the slider-actuator is located in a position that conflicts with the limitation that the pin is positioned on the outer end of the arm near the inner end of the arm.⁴ CMC next claims that the slider-actuator moves horizontally to drive the large gear in a downward rotation, which is distinct from the movement of the second end portion of the arm disclosed in the '927 Patent. Finally, CMC argues that the slider-actuator and gear combination is not equivalent to the claimed arm because it functions in a substantially different way to achieve a different result. These arguments by CMC are aimed at either how the arm functions, such as the movement of the arm, or at how the arm fits with the remaining structures disclosed in the claim, such as the location of the pin. However, they do not address whether the Grain Gauge literally has a "arm" as claimed in LTJ's patent.

LTJ's expert opines that a person of ordinary skill in the art would understand the term "arm" to be similar to a human arm, meaning a part or parts projecting from a fixed point, axis, or fulcrum. Titus Decl. ¶ 7. CMC's expert proffers a similar opinion. See Second Mezera Aff.

⁴ The inner outer language is derived from the structure of the means pivotally moving/mounting means-plus-function claim. See Claim Construction Mem. at 14.

[Docket No. 88] Ex. 6 15:15–21 (defining “arm” as either a lever arm or something resembling a human arm). Titus, LTJ’s expert, opines that “the assembly consisting of the linkage, the pin connecting the linkage to the gear drive, and the gear drive fit the definition of an arm.” Titus Decl. ¶ 7.

2. Movement of the second end portion of the arm

a. Function

Claim 18 recites a “motion transmitting means connecting a second end portion of the arm to the visual means operable to rotate the visual means between the ON and OFF positions in response to generally upward and downward movement of the second end portion of the arm.” ’927 Patent 11:5–9. The function of this means-plus-function claim is “to rotate the visual means between the ON and OFF positions in response to generally upward and downward movement of the second end portion of the arm.” Claim Construction Mem. at 14.

The first step for literal infringement of a means-plus-function claim is a determination of whether the accused device performs an identical function to the one recited in the claim. IMS Tech., 206 F.3d at 1430. If an identical function is performed, the next step is to determine whether the accused device uses the same or equivalent structures, materials, or acts found in the specification. Id.

The parties dispute whether the Grain Gauge rotates the visual means in response to generally upward and downward movement of the second end portion of the arm. If LTJ’s position is accepted and the large gear and linkage assembly is the arm, then the large gear is the second end portion of the arm.

Comparing the movement of the large gear in the Grain Gauge to the movement of the

second end portion of the LevAlert arm reveals noticeably different results. As CMC's expert explains, the large gear of the Grain Gauge rotates around a rotation point while the LevAlert's arm pivots on a pivot point. Mezera Decl. [Docket No. 65] Ex. 3 ("Douglas Report") 6–9; In the LevAlert, the arm functions like a see-saw; when the second end moves up, the opposite end moves down. The upward and downward movement is general, rather than exact, because the ends of the arm arc slightly as they move up and down. Comparatively, the Grain Gauge's arm functions differently; the end of the arm on the bin side of the fixed point moves horizontally. This movement pushes the gear on the other side of the fixed point, the second end portion, both down along a vertical axis and in a downward arc or rotation. As a result, the rotational movement of the second end of the Grain Gauge's purported arm is significantly greater than the arc of the LevAlert's arm. As LTJ's expert observed, the large gear does travel along a vertical axis, arguably satisfying the generally upward and downward movement the function recites. Titus Decl. ¶ 14.

The word "generally" is troublesome; it injects an amorphous word to apply to a standard that requires exactitude. Accordingly, a genuine dispute exists whether the movement of the second end portion of the Grain Gauge's arm moves generally upward and downward.

b. Structure

The second step for determining literal infringement of a means-plus-function claim requires identifying a corresponding structure on the accused device. Chiuminatta Concrete Concepts, 145 F.3d at 1309. The disclosed structure in the specification of the '927 Patent is "a gear drive" and "a generally linear teeth or rack on guide member." Claim Construction Mem. at 16. LTJ contends that the "gear drive" is the Grain Gauge's pinion. As to the "generally linear

teeth or rack on guide member,” LTJ argues that the “generally linear teeth or rack” are found on the Grain Gauge’s large gear. LTJ, however, concedes the absence of a guide member, arguing instead that the guide member is replaced by an equivalent structure.

This is where LTJ’s argument starts to teeter. The defect in LTJ’s argument is that it fails to sufficiently identify an equivalent structure in the Grain Gauge to the disclosed guide member. In the specification, the guide member is described as having “an oval ring that rides in annular shoulders and on disks and that surround gear to prevent the teeth of the rack from separating and becoming misaligned with the teeth of the spur gear.” ’927 Patent 5:47–51. Neither LTJ nor its expert is able to identify a corresponding structure in the Grain Gauge.⁵ Douglas Report at 15.

Most significantly, the “generally linear teeth or rack [are] on [the] guide member.” Id. 5:34–44. In the Grain Gauge, in order to be consistent with the claims, the “generally linear teeth or rack” must be the teeth located on the large gear. The ’927 Patent, however, discloses the guide member as being distinct from the arm: “Arm [] has an outer end [] that fits in a slot [] in guide member [].” Id. 5:46–47. The Grain Gauge does not have an intermediate structure on which the teeth or rack are positioned. Without a structure to correspond to the guide member, there can be no literal infringement.

⁵ In fact, Titus stated that, as to the guide member, it “was not used in the final construction.” Titus Decl. ¶ 13. This contention is incorrect. Construing a means-plus-function claim is a two step process identifying first the claimed function and second the corresponding structure that performs the function. Chiuminatta Concrete Concepts, 145 F.3d at 1308. As previously noted, the guide member, along with the “generally linear teeth or rack,” was determined to be the structure that performed the corresponding function “to rotate the visual means between the ON and OFF positions in response to generally upward and downward movement of the second end portion of the arm.” Claim Construction Mem. at 17.

Finally, the guide member is not a vestigial component deprived of purpose. Indeed, as described in the specification, the guide member is crucial to performing the disclosed function of rotating the visual means. While literal infringement does not turn on the necessity or significance of a claimed structure, the guide member performs an essential role. As stated by CMC's expert,

[t]he Guide Member has and [sic] important function and purpose. It helps to stabilize the relationship of the arm and teeth of the Guide Member with the gear that turns the visual indicator. It also helps prevent over-turning of the spur gear. Its enclosed-gear design is there for these and other reasons.

Douglas Report at 16. LTJ has not identified any structure in the Grain Gauge that performs this function or purpose, a finding that is fatal to literal infringement.

There is also no infringement under the doctrine of equivalence. As the Federal Circuit has noted, while the equivalence analysis under a means-plus-function claim and the doctrine of equivalence are not coextensive, the tests are closely related. Chiuminatta Concrete Concepts, 145 F.3d at 1310. Importantly, however, infringement under the doctrine of equivalents requires an equivalent structure in the accused device. As concluded above, the Grain Gauge lacks a structure equivalent to the guide member. LTJ's expert does not identify a structure in the Grain Gauge that functions to prevent the teeth from over-turning or misaligning with the spur gear. Accordingly, the Grain Gauge does not infringe this means-plus-function claim under the doctrine of equivalents.

Without a corresponding or equivalent structure to the motion transmitting means claim in claim 18, the Grain Gauge does not infringe the '927 Patent. LTJ has not presented any evidence or testimony that would permit a reasonable juror to find such a structure on the Grain Gauge. CMC is thus entitled to summary judgment of non-infringement of the '927 Patent.

E. LTJ' Remaining Causes of Action

In addition to patent infringement, LTJ asserts claims for trademark infringement, deceptive trade practices, unfair competition, and tortious interference. Each claim is addressed in turn.

1. Trademark Infringement

LTJ argues that CMC's unauthorized use of the "LevAlert" trademark on the CMC website and at CMC's booth at trade shows constitutes trademark infringement. LTJ contends that CMC's use amounts to a bait-and-switch by attracting customer interest through the LevAlert mark and then substituting a Grain Gauge for a LevAlert device. In response, CMC does not deny displaying the LevAlert mark but contends that the limited use of the mark was permissive.

The Lanham Act protects against the unauthorized use of trademarks, providing liability for:

Any person who shall, without the consent of the registrant—

(a) use in commerce any reproduction, counterfeit, copy, or colorable imitation of a registered mark in connection with the sale, offering for sale, distribution, or advertising of any goods or services on or in connection with which such use is likely to cause confusion, or to cause mistake, or to deceive; . . .

15 U.S.C. § 1114(1)(a). Similarly, § 1125 imposes civil liability against:

Any person who, on or in connection with any good or services, . . . uses in commerce any work, term, name, symbol, or device, or any combination thereof, or any false designation or origin, false or misleading description of fact, or false or misleading representation of fact, which —

(a) is likely to cause confusion, or to cause mistake, or to deceive as to the affiliation, connection, or association of such person with another person, or as to the origin, sponsorship, or approval of his or her goods, services, or commercial activities by another person, or

(b) in commercial advertising or promotion, misrepresents the nature, characteristics, qualities, or geographic origin of his or her or another person's goods, services, or commercial activities.

Id. § 1125(a)(1).

To establish its trademark infringement claim, LTJ must prove the existence of a valid mark and a likelihood of confusion. Cnty. of Christ Copyright Corp. v. Devon Park Restoration Branch of Jesus Christ's Church, 634 F.3d 1005, 1009 (8th Cir. 2011). Since CMC does not contest the validity of LTJ's mark, the success of this claim turns on the following six likelihood of confusion factors:

1) the strength of the trademark owner's mark; 2) the similarity between the trademark owner's mark and the alleged infringing mark; 3) the degree to which the allegedly infringing services competes with the trademark owner's services; 4) the alleged infringer's intent to confuse the public; 5) the degree of care reasonably expected of potential customers; and 6) evidence of actual confusion.

Id. (citing SquirtCo. v. Seven-Up Co., 628 F.2d 1086, 1091 (8th Cir. 1980)). "These factors do not operate in a mathematically precise formula; rather, we use them at the summary judgment stage as a guide to determine whether a reasonable jury could find a likelihood of confusion." Duluth News-Tribune v. Mesabi Publ'g Co., 84 F.3d 1093, 1096 (8th Cir. 1996).

a. Actual Confusion

"[W]hen determining whether there exists a likelihood of confusion, weight is given to the number and extent of instances of actual confusion." Life Techs., Inc. v. Gibbco Sci., Inc., 826 F.2d 775, 777 (8th Cir. 1987). Evidence of actual confusion may be presented in the form of testimony about incidents of confusion or survey evidence. See Frosty Treats Inc. v. Sony Comput. Entm't Am. Inc., 426 F.3d 1001, 1009 (8th Cir. 2005). In evaluating the evidence at the summary judgment stage, consideration is given only to those responses that are supported

by admissible evidence. Postscript Enters. v. City of Bridgeton, 905 F.2d 223, 226 (8th Cir. 1990).

CMC admits that it used the LevAlert mark in displays at trade shows and on its website. With respect to the unauthorized use of the LevAlert mark on CMC's website, CMC removed LTJ's mark from its website shortly after receiving a cease and desist letter from LTJ's counsel requesting that the mark be removed. See Spence Decl. [Docket No. 95] Ex. 1 (February 11, 2013 cease and desist letter); Ex. 2 (CMC's March 2, 2013 responsive email agreeing to remove the LevAlert mark from its website). The time period that CMC's unauthorized use of LTJ's mark was displayed on CMC's website is uncertain, but there is no dispute that CMC complied by removing the mark within a reasonable amount of time after the request. While even limited unauthorized use of a mark may violate the Lanham Act, LTJ has proffered no evidence that CMC's website caused any confusion or even was likely to cause confusion. Thus, CMC's unauthorized use of the LevAlert mark on its website does not establish liability. See St. Croix Printing Equip., Inc. v. Debbie Sexton, 578 F. Supp. 2d 1195, 1999 (D. Minn. 2008) (noting that, without actual confusion, brief, unauthorized use of a competitor's trademark on website did not amount to liability).

The use of the mark at trade shows is permissible comparative advertising unless sufficient customer confusion is demonstrated. Calvin Klein Cosmetics Corp. v. Lenox Labs., Inc., 815 F.2d 500, 503–04 (8th Cir. 1987); see also August Storck K.G. v. Nabisco, Inc., 59 F.3d 616, 618 (7th Cir. 1995) (“A use of a rival's mark that does not engender confusion about origin or quality is therefore permissible.”). As evidence of customer confusion, LTJ submits the declarations of John Hickling and Jay Strieby, as well as two photographs of a single CMC

booth at a trade show. Spence Decl. Exs. 3 (Photos) (5 (“Hickling Decl.”), 6 (“Strieby Decl.”)). Hickling states that he visited a CMC booth at the National Farm Machinery Show in Louisville, Kentucky to inquire about grain bin indicators. Hickling Decl. ¶ 2. At the CMC booth, Hickling observed displays for both LevAlert and Grain Gauge. Id. ¶ 3. The booth salesperson compared the two products and showed how Grain Gauge was an upgrade from LevAlert. Id. Hickling avers that he was led to believe that LevAlert was no longer in production. Id.

Strieby claims that when he telephoned CMC for current pricing on LevAlert he was informed by the salesperson that LevAlert had been discontinued and had been replaced with Grain Gauge. Strieby Decl. ¶¶ 1–3. Strieby claims that when he placed an order for LevAlert, CMC shipped him a Grain Gauge instead. Id. ¶ 4; Ex. A.

The Hickling Declaration provides minimal support to demonstrate customer confusion. While Hickling saw displays of both Grain Gauge and LevAlert, his confusion did not flow from the unauthorized use of the LevAlert mark. Instead, Hickling’s reported confusion predominately arose from the salesperson’s presentation rather than CMC’s unauthorized use of LTJ’s LevAlert mark. Hickling does not aver that he erroneously associated LevAlert with CMC or that he was confused that LevAlert and Grain Gauge were the same product. Indeed, the confusion that Hickling experienced directly from CMC’s unauthorized use of the LevAlert mark is minimal.

The Strieby declaration provides even less evidence of customer confusion. Absent from Strieby’s declaration is any claim that CMC employed LTJ’s mark in a confusing manner. Strieby does not even state that he saw the LevAlert mark on CMC’s website or at a trade show; Strieby does not claim he saw CMC using LTJ’s mark at all. Instead, when Strieby telephoned

CMC to inquire about LevAlert pricing, Strieby was informed that LevAlert had been discontinued in favor of Grain Gauge. Strieby's testimony in no way demonstrates actual confusion resulting from CMC's alleged improper use of LTJ's trademark.

The value of the market confusion evidence submitted by LTJ is further diminished because "even several isolated incidents of actual confusion that occur initially upon the creation of a potentially confusing mark are insufficient to establish a genuine issue of material fact as to the likelihood of confusion." Duluth News-Tribune, 84 F.3d at 1099 (citing Astra Pharm. Prods., Inc. v. Beckman Instruments, Inc., 718 F.2d 1201, 1207–08 (1st Cir. 1983)). This is especially true here given that CMC was LTJ's primary seller of LevAlert in the United States for many years. It is therefore unsurprising that only a year after the parties' relationship ended, a few customers still associated LevAlert with CMC. Looking at "whether an appreciable number of ordinary purchasers are likely to be so misled," the only reasonable answer derived from the Hickling and Strieby declarations is in the negative. Duluth News-Tribune, 84 F.3d at 1099.

The photographs also do not aid LTJ's trademark claim. The CMC booth depicted in the photographs features a large center board flanked by two smaller tables. On one table, Grain Gauge is exclusively displayed. The other table shows both the Grain Gauge and the LevAlert affixed to a portion of a segment of a grain silo, highlighting the purported benefits Grain Gauge has over LevAlert. This is classic product comparison. See Calvin Klein, 815 F.2d at 503–04.

b. Other Factors

Turning to the other likelihood of confusion factors all but two—the strength of the mark and the degree of competition—favor CMC. "LevAlert" and "Grain Gauge" have no similarity

in sight, sound, or meaning, and the overall impression of the two marks is not confusingly similar. General Mills, Inc. v. Kellogg Co., 824 F.2d 622, 627 (8th Cir. 1987). There is also no evidence that CMC intended to trade on the accumulated goodwill and reputation in the LevAlert mark. CMC's desire to compete and attract LTJ customers to Grain Gauge is not equivalent to an intention to mislead and cause customer confusion. Id. Lastly, the conditions of purchase factor favors CMC. LTJ has produced no evidence that the conditions of purchase increase the likelihood of confusion. See Luigino's, Inc. v. Stouffer Corp., 170 F.3d 827, 831 (8th Cir. 1999) (reciting standard). The \$125 price for an individual Grain Gauge and the installation mechanics preclude the product from being purchased spontaneously on a whim—the type of purchase that might lead someone into buying the wrong product—even if the Grain Gauge and LevAlert were sold in close physical proximity.

No reasonable fact finder could thus conclude that CMC's use of the LevAlert mark was directed to cause customer confusion in the bin measurement market. LTJ's trademark infringement claim fails as a matter of law.

2. Deceptive Trade Practices Act and Unfair Competition

LTJ also claims that CMC violated Minnesota's Uniform Deceptive Trade Practices Act ("UDTPA"), Minn. Stat. § 325D.43 et seq., as well as engaged in common law unfair competition. In response, CMC argues that independent evaluation of these claims is unnecessary because these causes of action are coextensive with Lanham Act claims.

CMC is correct. Because "[t]he same substantive elements are used to judge the deceptive trade practices claim under Minnesota law," the analysis under the Lanham Act applies equally to claims under the UDTPA. 3M Innovative Props. Co. v. Dupont Dow

Elastomers LLC, 361 F. Supp. 2d 958, 968 (D. Minn. 2005); Aviva Sports, Inc. v. Fingerhut Direct Mktg., Inc., 829 F. Supp. 2d 802, 809 n.7 (D. Minn. 2011). The same is true for common law unfair competition; like UDTPA, likelihood of confusion is also an element of common law unfair competition. See Minn. Stat. § 325D.44 (UDTPA); Mars Musical Adventures, Inc. v. Mars, Inc., 159 F. Supp. 2d 1146, 1153 (D. Minn. 2001) (noting that likelihood of confusion is a required element for unfair competition). As concluded above, there is insufficient evidence for a reasonable jury to conclude that likelihood of confusion exists. Thus, the grant of summary judgment to CMC on trademark infringement necessitates dismissal of the UDTPA and common law claims as well.

3. Tortious Interference

LTJ's final cause of action is for tortious interference. This claim does not arise in the context of existing contracts that CMC allegedly interfered with. Rather, LTJ alleges that CMC interfered with its general business relationships. LTJ argues that CMC's representations that LevAlert had been discontinued in favor of Grain Gauge were erroneous and provides a basis for this claim to proceed to trial. CMC disagrees and argues that the Strieby declaration, the lone record evidence purporting to substantiate LTJ's claim, is independently insufficient to sustain this cause of action. CMC additionally argues that there is no evidence of LTJ having either a preexisting relationship or active solicitation that CMC interfered with. Thus, the claim fails.

To succeed on this claim, LTJ must prove five elements:

1) The existence of a reasonable expectation of economic advantage; 2) Defendant's knowledge of that, expectation of economic advantage; 3) That defendant intentionally interfered with plaintiff's reasonable expectation of economic advantage, and the intentional interference is either independently tortious or in violation of a state or federal statute or regulation; 4) That in the absence of the wrongful act of defendant, it is reasonably probable that plaintiff

would have realized his economic advantage or benefit; and 5) That plaintiff sustained damages.

Gieseke v. IDCA, Inc., 844 N.W.2d 210, 219 (Minn. 2014). The law in Minnesota is also clear that LTJ bears the burden of specifically identifying third parties with whom it had a reasonable probability of a future economic relationship. Id. at 221.

LTJ has not met its burden. The Strieby declaration states that although he had purchased LevAlert in the past, those past purchases were through CMC. Strieby Decl. ¶ 2. Absent from the record is any evidence that Strieby had a past relationship with LTJ that CMC interfered with. Indeed, Strieby had a past relationship with CMC, not LTJ. That Strieby purchased a LTJ product through CMC is, without more, insufficient to find a reasonable expectation of economic advantage.

In addition, CMC did not engage in independently tortious or unlawful conduct. A close examination of Strieby's declaration reveals that CMC did not tell him LevAlert was no longer being manufactured but rather was discontinued. Given that CMC was no longer selling LevAlert, telling a former customer that LevAlert had been discontinued in favor of Grain Gauge is truthful. CMC can be fairly characterized as soliciting LTJ's potential, rather than actual customers, which the Minnesota Supreme Court has concluded falls "squarely within the ambit of competition" and is thus not improper. Gieseke, 844 N.W.2d at 215–16 (quoting United Wild Rice, Inc. v. Nelson, 313 N.W.2d 628, 633 (Minn. 1982)).

F. CMC's Counterclaims

1. Minnesota Agricultural Equipment Dealer Act

CMC asserts a cause of action under the Minnesota Agricultural Equipment Dealership Act ("MAEDA"), Minn. Stat. § 325E.061, et seq. LTJ argues that the record does not support

this claim. Specifically, LTJ contends that the parties never had a statutorily recognized dealership agreement, that the LevAlert is not “farm equipment,” and that LTJ is not, while CMC is, a farm equipment manufacturer.

CMC, in response, admits the absence of a formal dealership agreement reduced to writing. According to CMC, this cause of action still has merit because the parties entered into an oral dealership agreement, which CMC argues is sufficient under MAEDA. CMC also disagrees with LTJ’s conclusion that the LevAlert is not farm equipment and thus with LTJ’s assessment of who is, and who is not, a farm equipment manufacturer.

MAEDA prohibits farm-equipment manufactures from terminating certain dealership agreements without good cause. Minn. Stat. § 325E.062, subd. 1. Thus, liability under MAEDA requires a dealership agreement, a farm equipment manufacturer, and a farm equipment dealer. Assuming without deciding that an oral dealership agreement existed, the claim nevertheless fails because LTJ is not a farm equipment manufacturer.⁶

The MAEDA statute designates a person or business enterprise as a farm equipment manufacturer if they are engaged in the manufacturing, assembly, or wholesale distribution of farm equipment. *Id.* at subd. 3. Under the statute, “Farm Equipment:”

means equipment and parts for equipment including, but not limited to, tractors, trailers, combines, tillage implements, balers, skid steer loaders, attachments and repair parts for them, and other equipment, including attachments and repair parts, used in the planting, cultivating, irrigation, harvesting, and marketing of agricultural products, excluding self-propelled machines designed primarily for the transportation of persons or property on a street or highway.

⁶ The parties submitted Letters [Docket Nos. 104, 105] pertaining to deposition corrections aimed at substantiating the existence of an oral agreement. Since the disposition of CMC’s MAEDA claim turns on other grounds, the issue of whether there was an oral dealership agreement will not be decided here.

Id. at subd. 2.

By statute, an item becomes farm equipment if it satisfies one of two definitions. The first is reserved for “equipment and parts for equipment including, but not limited to, trailers, combines, tillage implements, balers, skid steer loaders, attachments and repair parts for them.”

Id. The LevAlert is not “equipment” under this definition. Although prefaced with expansive “including, but not limited to” language, LevAlert, as a small, predominately plastic, non-motorized device that retails for around \$100, does not square with the enumerated examples, all of which are large pieces of machinery that cost substantially more than \$100. See Krech v. Krech, 624 N.W. 2d 310, 312 (Minn. Ct. App. 2001) (noting the *ejusdem generis* canon of statutory construction). Additionally, since LevAlert is designed to indicate the amount of material stored in a bin, it is not an “attachment” or “repair part” for one of the enumerated examples.

MAEDA also defines farm equipment as “other equipment, including attachments and repair parts, used in the planting, cultivating, irrigation, harvesting, and marketing of agricultural products.” Minn. Stat. § 325E.061, subd. 2. This definition, too, excludes the device. Regardless of whether the “and” between harvesting and marketing is, as CMC argues, disjunctive, or, as LTJ submits, conjunctive, the result is the same. The LevAlert is intended to be affixed to the side of a bin. A bin or storage container is not used in planting; although the seed stored inside of a container with LevAlert may later be planted, the grain bin itself is not used in the act of planting. The same is true for harvesting; the container may store the fruits of the harvest, but it is not “used in” harvesting, as the definition requires. Similarly, it cannot be said that LevAlert is used in irrigation, cultivating, or marketing.

Despite being used in an agricultural setting, LevAlert is not encompassed within the definition of farm equipment. Since LevAlert is not farm equipment, LTJ is not a farm equipment manufacturer. Because CMC's MAEDA claim requires LTJ to be a farm equipment manufacturer, this counterclaim fails as a matter of law.

2. Tortious Interference

Like LTJ, CMC also alleges a claim for tortious interference. Again, a viable tortious interference with prospective business relationship claim must have the following five elements:

1) The existence of a reasonable expectation of economic advantage; 2) Defendant's knowledge of that, expectation of economic advantage; 3) That defendant intentionally interfered with plaintiff's reasonable expectation of economic advantage, and the intentional interference is either independently tortious or in violation of a state or federal statute or regulation; 4) That in the absence of the wrongful act of defendant, it is reasonably probable that plaintiff would have realized his economic advantage or benefit; and 5) That plaintiff sustained damages.

Gieseke, 844 N.W.2d at 219. As to element three, because CMC's MAEDA counterclaim is dismissed, CMC must adduce sufficient evidence that LTJ committed an independent tort. CMC advances two points to satisfy this requirement. First, CMC argues that LTJ unilaterally altered the terms and conditions of the parties' agreement such that CMC was unable to maintain its customer base. Second, CMC argues that LTJ targeted specific customers in an effort to deprive CMC of sales of the LevAlert device.

Neither of CMC's arguments is persuasive. As to the first, even assuming the existence of an oral agreement requiring LTJ to sell CMC the LevAlert device at a discounted price, LTJ did nothing unlawful in terminating that purported agreement. Because the record lacks any support to conclude that the parties' purported agreement was for a definite duration, any oral agreement that may have existed between CMC and LTJ did not have a fixed term. In

Minnesota, “[t]he general rule is that contracts having no fixed term are terminable at will by either party.” Polk v. Mut. Serv. Life Ins. Co., 344 N.W. 2d 427, 430 (Minn. Ct. App. 1984). There is no evidence that the exception to the rule—unilateral termination is unlawful when the contract provides for continued performance “as long as” one party performs satisfactorily—would apply. Minn. Deli Provisions, Inc. v. Boar’s Head Provisions Co., Inc., 606 F.3d 544, 549 (8th Cir. 2010) (interpreting Minnesota law).

CMC’s second argument also lacks force. CMC complains that LTJ solicited sales of LevAlert to Superior, Inc., one of CMC’s largest customers, after CMC’s preferred pricing ended. While there is support in the record for this contention, the record also reflects that LTJ offered to sell Superior, Inc. LevAlert at approximately \$69.50 per unit, which is the revised price that LTJ offered to CMC. Niles Decl. Ex. 9. Rather than evincing tortious conduct, LTJ, consistent with its decision to end CMC’s exclusive distributorship agreement, was merely realigning CMC to be on equal price footing with its other customers. This is not independently tortious conduct. CMC’s claim is dismissed.

IV. CONCLUSION

Based upon the foregoing, and all of the files, records and proceedings herein, **IT IS HEREBY ORDERED** that:

1. CMC’s Motion to Exclude Expert Testimony [Docket No. 78] is **DENIED**;
2. LTJ’s Motion to Exclude Expert Testimony [Docket No. 87] is **DENIED**;
3. LTJ’s Motion for Summary Judgment [Docket No. 61] is **GRANTED IN PART and DENIED IN PART** as follows:
 - A. Summary judgment of infringement of the ’927 Patent is **DENIED**;

B. Summary judgment of CMC's Minnesota Agricultural Equipment Dealership Act counterclaim is **GRANTED**; and

C. Summary judgment of CMC's tortious interference counterclaim is **GRANTED**.

4. CMC's Motion for Summary Judgment [Docket No. 75] is **GRANTED**.

LET JUDGMENT BE ENTERED ACCORDINGLY.

BY THE COURT:

s/Ann D. Montgomery
ANN D. MONTGOMERY
U.S. DISTRICT JUDGE

Dated: March 10, 2016.